

Notice of Allowability

Application No.

09/867,705

Examiner

Jerome Grant II

Applicant(s)

FURUYA, HIROYUKI

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4-27-2005.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 31 May 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 7-7-05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEROME GRANT II
PRIMARY EXAMINER

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stuart Lee on 7-7-05.

In the claims:

1. (Currently Amended by the Examiner): An image recording apparatus comprising:
 - a recording device for recording an image on a recording medium;
 - an image signal converting device for converting signal values of a first image signal of the image into signal values of a second image signal to be used for recording by said recording device by employing an image signal converting condition indicative of a relationship between the first image signal and the second image signal;
 - a density measuring device for reading a test chart image recorded by said recording device by using test chart output image signal values of the second image signal, to acquire measurement density values of the test chart image;
 - a reference density value selecting device for selecting reference density values corresponding to the measurement density values from a target density data, the target

Art Unit: 2626

density data indicating a relationship between the first image signal and target density of an image recorded on the recording medium, and having a total data number larger than that of the measurement density values acquired by said density measuring device; and

a converting condition calculating device for calculating target image signal values of the test chart image based upon the target density data and the reference density values, each of the target image signal values corresponding to each of the measurement density values, and for calculating an image signal converting condition based upon both the target image signal values

and the test chart output image signal values, wherein signal values of the first image signal of the image to be recorded are converted into signal values of the second image signal by the image signal converting condition and the image is recorded.

11. (Currently Amended by the Examiner): An image recording method in which signal values of a first image signal are converted into signal values of a second image signal by employing an image signal converting condition indicative of a relationship between the first image signal and the second image signal, and an image is recorded on the recording medium by using signal values of the second image signal, comprising the steps of:

reading a test chart image recorded on the recording medium by sing test chart output image signal values of the second image signal, to acquire measurement density value of the test chart image;

selecting reference density values, corresponding to the measurement density values, from a target density data, the target density data indicating a relationship between the first image signal and target density of an image recorded on the recording medium, and having a

Art Unit: 2626

total data number larger than that of the measurement density values;

calculating target image signal values of the test chart image based upon the target density data and the reference density values, each of the target image signal values corresponding to each of the measurement density values; and

calculating the image signal converting condition based upon both the target image signal values and the test chart output image signal values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams, can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II

JEROME GRANT II
PRIMARY EXAMINER



Reasons for Allowance

1.

Claims 1-10 and 13-15 are allowed for the reason the prior art does not teach in claimed combination, "... a density measuring device for reading a test chart image recorded by said recording device by using test chart output image signal values of the second image signal. To acquire measurement density values of the test chart image..."

Claims 11 and 16-18 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... reading a test chart image recorded on the recording medium by using test chart output image signal values of the second image signal, to acquire measurement density values of the test chart image selecting reference density values corresponding to measurement density values from a target density data, the target density data indicating a relationship between the first image signal and target density of an image recorded on the recording medium, and having a total data number larger than that of the measurement density values..."

Art Unit: 2626

Claim 12 is allowed for the reason the prior art does not teach in claimed combination, "... a communication device for receiving density measurement values of a test chart image which is recorded by said recording device from test chart output image signal values of the second image and supplied to said density measuring apparatus and measured by said density measuring apparatus..."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams, can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II


JEROME GRANT II
PRIMARY EXAMINER